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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,824	12/26/2001	Koichi Nishimura	011755	8024

23850 7590 03/19/2003

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EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-4

Office Action Summary

Application No.

09/926,824

Applicant(s)

NISHIMURA ET AL.

Examiner

Thao T. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Starmer (US Pat. 4,048,261).

Starmer teaches a rubber composition, comprising a diene/nitrile rubber; an epihalohydrin rubber; and a crosslinking agent (curative system) (see abstract).

In regards to claims 1-2, the reference further teaches the composition, comprising about 1% to about 99% weight of the diene/nitrile; the diene/nitrile rubber includes about 15% to about 49% weight of a mono-olefinically unsaturated nitrile monomer and about 50% to about 98% weight of a conjugated diene monomer; and about 0.1 to about 7 parts by weight of the curative agents (see abstract; col. 1, ln. 55 to col. 2, ln. 5; claims 1-2).

With respect to the use of the composition, it has been within the skill in the art that intended use has no significant patentable weight in a composition claim.

In regards to claim 4, Starmer teaches the diene/nitrile rubber having a Mooney viscosity of 20 to 100 (see col. 3, ln. 43-45).

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In regards to claims 5-6, Starmer teaches the unsaturated nitrile monomer being acrylonitrile or methacrylonitrile and the conjugated diene monomer being 1-3-pentadiene or 3-butadiene (see col. 2, ln. 21-23, ln. 33-34).

In regards to claim 7, although Starmer does not specifically teach the Mooney viscosity of the epihalohydrin, since the reference teaches the same composition, the epihalohydrin used in Starmer would inherently have the same properties, such as the Mooney viscosity, as presently claimed.

In regards to claims 8-9, Starmer teaches the epihalohydrin rubber being a copolymer of an epihalohydrin monomer and an unsaturated epoxide monomer; and that the epihalohydrin being epichlorohydrin (see col. 5, ln. 51-52, ln. 65; col. 6, ln. 3-11).

In regards to claims 10-11, Starmer teaches the nitrile rubber crosslinking agent being sulfur or peroxide (see col. 1, ln. 8-10); and the epihalohydrin rubber crosslinking agent being a thiourea or an amine (see col. 6, ln. 58-65; col. 7, ln. 22-30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Starmer as applied to claims 1-10 above.

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Starmer does not specifically teach a hose having a layer comprising the rubber composition.

However, Starmer further teaches that the polymer blends exhibit a good balance of tensile strength, low oil swell, flex resistance, and oxidative resistance (see col. 1, ln. 49-51).

Therefore, it would have been obvious to one of ordinary skill in the art that the polymer blends taught by Starmer would have been made into a hose, such as a gasoline hose, because the compositions have low oil swell and good flex resistance.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

tt

March 12, 2003



NATHAN M. NUTTER
PRIMARY EXAMINER
GROUP ~~100~~ 1711